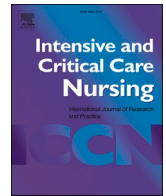




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## Letter to the Editor

**Preventing healthcare-acquired infections in cancer patients with febrile neutropenia in intensive care units: The role of granulocyte-colony stimulating factor prophylaxis**

Dear Editor,

We read with interest the review article by Blot et al. (2022), particularly as the authors emphasize the vital role played by antimicrobial prophylaxis for adult patients experiencing immunosuppression caused by cancer, particularly during the COVID-19 pandemic. Nevertheless, there remain several issues regarding the use of granulocyte-colony stimulating factor (G-CSF) prophylaxis for patients with neutropenia in intensive care units (ICUs) that warrant further exploration.

Firstly, febrile neutropenia (FN) is a critical hematological condition that requires immediate attention as the mortality rate among FN patients admitted to the ICU remains alarmingly high (Cetintepe et al., 2021). To predict mortality and determine the risk group of patients with FN, several scoring systems have been developed. Among these, the multinational association for supportive care in cancer (MASCC) scoring system is particularly useful in deciding the appropriate treatment plan for FN patients based on their age, medical history, symptoms, outpatient/inpatient status, and comorbid conditions (Uys et al., 2004). Patients who score less than 21 on the MASCC assessment are considered to be at high-risk and require hospitalization for intravenous empirical treatment, while low-risk patients may be treated with oral antibiotics following a brief hospitalization or even an outpatient visit (Cetintepe et al., 2021).

Secondly, a large cohort study of 9018 patients with cancer also highlights the essential role of G-CSF prophylaxis in reducing the risk of chemotherapy-induced FN (Aagaard et al., 2020). The authors observed that patients who developed FN during their initial treatment experienced increased rates of all-cause and infectious mortality, as well as an elevated risk of ICU admissions. Additionally, the study revealed a number of factors that were linked to heightened death and ICU admission rates in patients with FN, including a positive blood culture and low lymphocyte counts, particularly during the first month following FN. These findings highlight the need for effective interventions that can reduce the incidence of FN, such as the prophylactic use of G-CSF and antibiotics, which have the potential to substantially enhance patient outcomes (Aagaard et al., 2020).

Thirdly, and most importantly, updating recommendations for G-CSF prophylaxis is imperative for cancer patients with FN, as the vulnerable patient population is at significant risk of infection due to the COVID-19

pandemic (Boccia et al., 2022). In response to this pressing need, experts from cancer societies have recently revised existing guidelines and recommendations for the use of G-CSF prophylaxis in patients at intermediate risk (10–20%) of FN (Boccia et al., 2022). Such revisions are expected to reduce the incidence of FN and prevent unnecessary hospitalizations or ICU admissions during the COVID-19 pandemic.

In view of these issues, recent studies have the potential to illuminate the intricate interplay between various prevention measures and risk factors associated with cancer patients who are at risk for healthcare-associated infections and ICU admission. By gaining a deeper understanding of this complex relationship, we can develop more tailored and effective prophylactic strategies for these patients, ultimately transforming the landscape of nursing practices and communication between intensive care and ambulatory care.

**Declaration of Competing Interest**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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